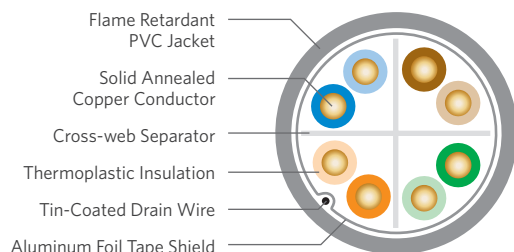


Category 6A ScTP (F/UTP)

CMR/CMP



SPECIFICATIONS

Configuration	Copper pairs surrounded by aluminum PET foil with an outer drain wire and jacket
Pair Count	4
Conductor	Solid annealed copper
AWG (mm)	23 (0.57)
Insulation	CMR: Thermoplastic CMP: FEP
Insulation Colors	Pair 1: ColorTip Light Blue, Blue Pair 2: ColorTip Light Orange, Orange Pair 3: ColorTip Light Green, Green Pair 4: ColorTip Light Brown, Brown
Separator	Cross-web
Shield	Aluminum/PET
Drain Wire	Tinned copper
Jacket	CMR: Flame retardant (FR) PVC CMP: FR, low smoke PVC
Characteristic Impedance Ohms	100 ± 15
Nominal Velocity of Propagation %	CMR: 66 CMP: 71
Performance Compliance	UL 444 CSA C22.2 No. 214-08 UL 1666 NFPA 262 ANSI/TIA-568-C.2 Article 800, NEC (NFPA 70) RoHS-compliant
NRTL Programs	UL Verified CAT 6A UL, c(UL) Listed CMR UL, c(UL) Listed CMP

PRODUCT DESCRIPTION

Category 6A ScTP (F/UTP) cable, swept out to 650 MHz, meets or exceeds ANSI/TIA-568-C.2 for CAT 6A cables, a requirement for 10GBASE-T applications. The cable is UL Verified CAT 6A and has a typical Alien Crosstalk margin of 18 dB.

The cable consists of four (4) balanced 23 AWG copper pairs around a flame retardant cross-web. The core is wrapped with a Mylar backed aluminum foil. A drain wire is applied longitudinally against the tape. The cable is then protected with a flexible riser or plenum rated PVC jacket. Standard features include ColorTip™ circuit identification system and QuickCount® length marking system measured in both feet and meters.

APPLICATIONS

- 10BASE-T through 10GBASE-T Ethernet
- Power over Ethernet (PoE) - IEEE 802.3af
- PoE+ - IEEE 802.3at Type 1 and 2
- ATM and token ring
- Backward compatible to legacy protocols and applications

FEATURES

- Overall shielded core
- Exceeds ANSI/TIA-568-C.2 specification for CAT 6A cable performance
- UL Verified CAT 6A
- Riser and plenum rated designs
- CableID® alpha numeric code printed every 2 feet
- QuickCount marking system in feet and meters
- ColorTip circuit identification system

BENEFITS

- Protects against EMI/RFI
- 18 dB typical margin Alien Crosstalk performance
- Meets all 10GBASE-T application requirements
- Exceeds requirements for Alien Crosstalk performance
- Assures CAT 6A performance by a nationally recognized test lab
- Meets all fire safety requirements for either backbone or horizontal applications
- Allows both ends of a cable run to be easily identifiable without the need to separately label or tone the cable
- Provides remaining length of cable on reel
- Easily identifiable conductor mates even in low-light environments

PART NUMBERS AND PHYSICAL CHARACTERISTICS

Listing	Part Number ¹	Nominal Diameter in (mm)	Approx. Weight lbs./kft (kg/km)	Package	Packages per Pallet
CMR	6F-272-xA	0.29 (7.3)	40 (59)	1,000' Plywood reel	12
CMR	6F-273-xA	0.29 (7.3)	40 (59)	2,500' Plywood reel	12
CMP	6F-272-xB	0.30 (7.7)	46 (69)	1,000' Plywood reel	12
CMP	6F-273-xB	0.30 (7.7)	46 (69)	2,500' Plywood reel	12

JACKET COLORS

¹Replace "x" with: Blue = 2 Gray = 3 White = 4 Green = 5 Yellow = 6 Purple = 7 Red = 9 Orange = D

ELECTRICAL SPECIFICATIONS

Frequency MHz	Insertion Loss @ 20°C Maximum dB/100 m			NEXT Minimum dB/100 m			ACR Minimum dB/100 m			PSNEXT Minimum dB/100 m			PSACR Minimum dB/100 m		
	TIA-568-C.2		Superior Essex	TIA-568-C.2		Superior Essex	TIA-568-C.2		Superior Essex	TIA-568-C.2		Superior Essex	TIA-568-C.2		Superior Essex
	Specified	Guar.	Typical	Specified	Guar.	Typical	Calculated	Guar.	Typical	Specified	Guar.	Typical	Calculated	Guar.	Typical
1	2.1	2.1	2.0	74.3	74.3	76.8	72.2	72.2	74.8	72.3	72.3	74.8	70.2	70.2	72.8
4	3.8	3.8	3.7	65.3	65.3	67.8	61.5	61.5	64.0	63.3	63.3	65.8	59.5	59.5	62.0
8	5.3	5.3	5.2	60.8	60.8	63.3	55.4	55.4	58.1	58.8	58.8	61.3	53.4	53.4	56.1
10	5.9	5.9	5.8	59.3	59.3	61.8	53.4	53.4	56.0	57.3	57.3	59.8	51.4	51.4	54.0
16	7.5	7.5	7.3	56.2	56.2	58.7	48.8	48.8	51.4	54.2	54.2	56.7	46.8	46.8	49.4
20	8.4	8.4	8.2	54.8	54.8	57.3	46.4	46.4	49.1	52.8	52.8	55.3	44.4	44.4	47.1
25	9.4	9.4	9.2	53.3	53.3	55.8	44.0	44.0	46.6	51.3	51.3	53.8	42.0	42.0	44.6
31.25	10.5	10.5	10.3	51.9	51.9	54.4	41.4	41.4	44.1	49.9	49.9	52.4	39.4	39.4	42.1
62.5	15.0	15.0	14.7	47.4	47.4	49.9	32.4	32.4	35.2	45.4	45.4	47.9	30.4	30.4	33.2
100	19.1	19.1	18.8	44.3	44.3	46.8	25.2	25.2	28.0	42.3	42.3	44.8	23.2	23.2	26.0
155	24.1	24.1	23.6	41.4	41.4	43.9	17.4	17.4	20.3	39.4	39.4	41.9	15.4	15.4	18.3
200	27.6	27.6	27.0	39.8	39.8	42.3	12.2	12.2	15.3	37.8	37.8	40.3	10.2	10.2	13.3
250	31.1	31.1	30.4	38.3	38.3	40.8	7.3	7.3	10.4	36.3	36.3	38.8	5.3	5.3	8.4
300	34.3	34.3	33.6	37.1	37.1	39.6	2.9	2.9	6.1	35.1	35.1	37.6	0.9	0.9	4.1
350	37.2	37.2	36.5	36.1	36.1	38.6			2.1	34.1	34.1	36.6			0.1
400	40.1	40.1	39.3	35.3	35.3	37.8				33.3	33.3	35.8			
450	42.7	42.7	41.9	34.5	34.5	37.0				32.5	32.5	35.0			
500	45.3	45.3	44.4	33.8	33.8	36.3				31.8	31.8	34.3			

Frequency MHz	Return Loss Minimum dB/100 m			ACRF Minimum dB/100 m			PSACRF Minimum dB/100 m			PSANEXT Minimum dB/100 m			PSAACRF Minimum dB/100 m		
	TIA-568-C.2		Superior Essex	TIA-568-C.2		Superior Essex	TIA-568-C.2		Superior Essex	TIA-568-C.2		Superior Essex	TIA-568-C.2		Superior Essex
	Specified	Guar.	Typical	Specified	Guar.	Typical	Specified	Guar.	Typical	Specified	Guar.	Typical	Specified	Guar.	Typical
1	20.0	20.0	22.0	67.8	67.8	70.3	64.8	64.8	67.3	67.0	67.0	67.0	67.0	67.0	67.0
4	23.0	23.0	25.0	55.8	55.8	58.3	52.8	52.8	55.3	67.0	67.0	67.0	66.2	67.0	67.0
8	24.5	24.5	26.5	49.7	49.7	52.2	46.7	46.7	49.2	67.0	67.0	67.0	60.1	63.1	67.0
10	25.0	25.0	27.0	47.8	47.8	50.3	44.8	44.8	47.3	67.0	67.0	67.0	58.2	61.2	65.2
16	25.0	25.0	27.0	43.7	43.7	46.2	40.7	40.7	43.2	67.0	67.0	67.0	54.1	57.1	61.1
20	25.0	25.0	27.0	41.8	41.8	44.3	38.8	38.8	41.3	67.0	67.0	67.0	52.2	55.2	59.2
25	24.3	24.3	26.3	39.8	39.8	42.3	36.8	36.8	39.3	67.0	67.0	67.0	50.2	53.2	57.2
31.25	23.6	23.6	25.6	37.9	37.9	40.4	34.9	34.9	37.4	67.0	67.0	67.0	48.3	51.3	55.3
62.5	21.5	21.5	23.5	31.9	31.9	34.4	28.9	28.9	31.4	65.6	67.0	67.0	42.3	45.3	49.3
100	20.1	20.1	22.1	27.8	27.8	30.3	24.8	24.8	27.3	62.5	65.5	67.0	38.2	41.2	45.2
155	18.8	18.8	20.8	24.0	24.0	26.5	21.0	21.0	23.5	59.6	62.6	66.6	34.4	37.4	41.4
200	18.0	18.0	20.0	21.8	21.8	24.3	18.8	18.8	21.3	58.0	61.0	65.0	32.2	35.2	39.2
250	17.3	17.3	19.3	19.8	19.8	22.3	16.8	16.8	19.3	56.5	59.5	63.5	30.2	33.2	37.2
300	16.8	16.8	18.8	18.3	18.3	20.8	15.3	15.3	17.8	55.3	58.3	62.3	28.7	31.7	35.7
350	16.3	16.3	18.3	16.9	16.9	19.4	13.9	13.9	16.4	54.3	57.3	61.3	27.3	30.3	34.3
400	15.9	15.9	17.9	15.8	15.8	18.3	12.8	12.8	15.3	53.5	56.5	60.5	26.2	29.2	33.2
450	15.5	15.5	17.5	14.7	14.7	17.2	11.7	11.7	14.2	52.7	55.7	59.7	25.1	28.1	32.1
500	15.2	15.2	17.2	13.8	13.8	16.3	10.8	10.8	13.3	52.0	55.0	59.0	24.2	27.2	31.2